

Analysis of barriers in Mobile Banking services which affects Consumer Utility and Bank Channel cost

Dr. Seema P Joshi¹ and Mateen Ahemad Sk Salim²

¹Head, Department of Management Studies

²Research Scholar, North Maharashtra University, Jalgaon

ABSTRACT

Mobile banking is growing with a good pace in India but it has issues and threats the major problem of mobile banking is its non-adoption by the customers. Over the years, banks are following traditional brick-and mortar model of customers queuing for services in the banks. In the era of web2.0 banks can be reached at any point for their services. In today's business, technology has been on the predominant indicators of growth and competitiveness. The banking industry adopting new strategies to serve best services to their customers it may call as revolution. Information technology has basically been used under two different avenues in banking. One is communication and connectivity and other is business process. Today, banks have welcomed wireless and mobile technology into their operation to offer their customers the freedom to pay bills, planning payments while stuck in traffic jams, to receive updates on the various marketing efforts while present at a party to provide more personal and intimate relationships. This paper examines consumer adoption of a new electronic payment service as mobile banking and the factors influencing the adoption of mobile banking in India. This research focuses on the barriers in adoption of mobile banking. It further focuses on preferred services by the mobile banking customers and influence of demographic variable on mobile banking service adoption.

Keywords: Barriers, Consumer Utility, Mobile Banking, Services

Introduction

Mobile Banking Adoption in India

In India, the situation of the banks is quite different from the banks overseas particularly in developed markets. Indian banks are not facing huge write downs or losses and are still quite well capitalized. In India, adopting new technologies could be an opportune moment for banks to focus on the internal processes and consolidate their IT platforms across functionalities to use technology as an effective strategic tool. The use of technology in India has undergone rapid transformation. The last two decades have witnessed a sea change in the nature of services offered by not only banks but also the financial sector and even the Government - all of which have had a positive impact on the customers of these organizations and the general public at large. Financial Services are generally complex and need a lot of trust for the consumer to use technology. Banks have changed from paper-based banking solutions provider to the latest of the technologies like online-banking, mobile-banking, etc. It is surprising to know as to why most of the Indian customers have not welcomed this up gradation. Customers across the world, even technologically optimists, have refrained from using technology aided solutions.

There are many reasons why technology has not been able to ride the acceptance wave and cross the hurdle and become an acceptable feature in banking. As today's banking has redefined itself as customer centric, it becomes more important that the customer is happy with the services being provided. Unfortunately, the acceptance and adoption rates are very low even in the case of educated customers. The paper looks at various factors which explain why consumers are not using mobile banking and other technologies in banking. It would also try to suggest why people are not currently using mobile banking and try to suggest how to overcome this problem and increase the acceptance levels.

Literature Review

Adoption of tele-banking as well as Internet banking has received research attention in recent years. Much of the existing research in electronic banking services has adopted an organizational perspective or a distribution channel perspective. Consumers using these services have been focus in a large body of current research, nevertheless customer behavior in mobile banking context have remained rather uncharted territory. This paper aims at filling that gap by shedding light on the general usage of mobile services and in particular on influence of demographic characteristics on usage. The survey was conducted among Ghaziabad bank customers. The

paradigm shift, from traditional branch banking to electronic banking; the newly emerged channels; rapidly increasing penetration rates of mobile phones are among other the motivators of this study. The approach employed is practical and provides insights drawn from the quantitative empirical survey. The newly emerged mobile banking services represent an innovation where both intangible service and an innovative medium of service delivery employing high technology are present. Thus, concepts of innovation and diffusion of innovation are even more intricate as technology and service aspects have an effect on the characteristics of mobile banking services. Traditionally research relating to the customer adoption of innovation has tended to concentrate on socio-demographic and psychographic attributes of potential adopters. Even though these kind of personal characteristics of a consumer have found to be predictors of adoption, an increasing body of research has demonstrated that it is the perceived attributes of innovation itself rather than the personal characteristics that are the stronger predictors of the adoption decision. In the search to understand consumers' adoption of innovation, and where research has focused on the consumer perspective, Rogers' diffusion model, which originally dates back to 1962, has often been employed.

According to Rogers (1995) the perceived innovation characteristics are supposed to provide the framework how potential adopters perceive an innovation. Research that has investigated the product characteristics of innovation has generally endorsed evaluating the innovation along the product characteristics that involve five constructs; relative advantage, compatibility, complexity, trial ability and observe ability. Concept of perceived risk is often included as augmented by Bauer (1960). Particularly in banking services the perceived risk associated with the financial product itself as well as with electronic delivery channel is higher than in basic consumer goods, and hence increasing the importance of this attribute of innovation. Ensuring security and confidentiality are the fundamental prerequisites before any banking activity involving sensitive information can take place.

Relative advantage, compatibility, user experience and observations are positively related to adoption of an innovation and the remaining two, complexity and perceived risk, negatively related. These innovation attributes and their influence on adoption of mobile banking services are detailed under empirical implications.

Clark (2008) suggested that as a Channel the mobile phone can augment the number of channels

available to consumers, thereby giving consumers more low-cost self-service options by which to access funds, banking information and make payments. Mobile as a channel delivers convenience, immediacy and choice to consumers. But there are a large number of different mobile phone devices and it is a big challenge for banks to offer Mobile banking solution on any type of device. Some of these devices support Java2Micro Edition (J2ME) and others support Wireless Application Protocol (WAP) browser or only SMS.

Kolodinsky, Hogarth & Hilgert (2004) stated that millions of Americans are currently using a variety of e-banking technologies including Mobile banking. However, millions of others have not or will not. They explored factors that affect the adoption or intention to adopt three e-banking technologies and changes in these factors over time and suggested that relative advantage, complexity/simplicity, compatibility, observability, risk tolerance, and product involvement are associated with adoption. Income, assets, education, gender and marital status, and age also affect adoption. Adoption changed over time, but the impacts of other factors on adoption have not changed.

Gan, Clemes, Limsogunchai & Weng (2006) findings stated that in New Zealand the output from the logistic regression indicates that the service quality, perceived risk factors, user input factors, employment, and education were the dominant variables that influence consumers' choice of electronic banking and non-electronic banking channels.

Comminos et al. (2008) suggested that consumers will only transact electronically (online/mobile banking) if there is convenience and security. Further Sharma and Singh (2009) found that Indian mobile banking users are specially concern with security issues like financial frauds, account misuse and user friendliness issue - difficulty in remembering the different codes for different types of transaction, application software installation & updating due to lack of standardization.

Objectives

This study focuses on following research objectives:

1. Identify factors influencing the adoption and usage of mobile banking.
2. To study the perceived utility of various Mobile banking services.
3. To understand the barriers affecting bank channel cost.

Research Methodology

This paper is based on Exploratory Research. The major emphasis of Exploratory Research is on the discovery of ideas. Through Exploration, the researcher develops concepts more clearly, establish priorities, develop operational definitions, and improve the final research design. This research is both quantitative and qualitative. This research is based on the data collected through “Questionnaire” with Mobile banking User and Non-user.

Research Design

The data have been grouped into two main categories - primary and secondary data. The secondary data have been compiled from newspaper, journals, magazines, and web links and also research papers. The primary data have been collected through an exploratory research – Questionnaire with user and non user of mobile banking basically Businessmen, servicemen, professionals, students etc.

Temporal Scope

Data is collected between Nov 2012 to Jan 2013, researcher selected 10 banks in Pune city five Nationalized banks State Bank of India, Bank of Maharashtra, Central Bank, Bank of India and IDBI bank similarly five private banks Axis Bank, HDFC Bank, ICICI Bank, City bank & HSBC bank.

Researcher has given magnitude of 10% to all selected banks for responses from respondents.

Primary Data

All the bank’s customers from Pune were considered as population of research interest. The total sample size was fixed at 100 usable responses for data analysis. For data collection purposive sampling was adopted. To ensure all questions being answered in a proper way, questionnaires were completed and screened one-by-one

Table-1: Demographic Features of Respondent

Gender	59% Males, 41% Females
Age	7% <20, 43% 20-30, 22% 31-40, 14%41-50, 9%51-60 and 5% 61 & above.
Education	12% Under Graduate, 44% Graduate, 42% Post Graduate
Income	18% has 20000 or less than 20000 per month in INR, 82% has more that 20000 per month in INR
Family Size	17% has 0-3 Members, 56% has 3-5 Members, 27% has more than 5 Members
Profession	13% Students, 21% Self Employed and 66% working with Government or Private firms.

Secondary Data

Articles have been sourced from magazines and journals dealing with current issues in mobile banking adoption. Internet & Text books related to Mobile Banking & Research Methodology have been a major secondary source for the extraction of the expert's opinion.

Factors That Affect Mobile Banking Adoption

In order to identify the top and least five perceived items in affecting the adoption intention of Mobile Banking; the percentage score of the respondents was computed? Table provides the result

Table-2: Perceived Factors in Mobile Banking Adoption

Perceived Factors	Percentage of Using Mobile Banking Population (%)
I would use Mobile banking if I could use it on a trial basis first to see what it can offer	63%
I would use Mobile banking if I could see a trial demo first?	78%
I would use Mobile banking if I could test Mobile banking first?	23%
I would use or be more likely to use Mobile banking if Mobile banking was compatible with my lifestyle?	45%
I would use or be more likely to use Mobile banking if using my Mobile to conduct banking transactions fits into my working style?	20%
Mobile banking is a risky mode of banking to use?	81%
Mobile banking would allow me to manage my finances more efficiently?	31%
Mobile banking would be complex to use?	47%
I would use Mobile banking if Mobile banking increased my status?	29%
Mobile banking would require a lot of mental effort?	33%

Source: Primary Data

The findings in table indicate that adoption of Mobile Banking appears to be influenced by its trialability and compatibility. Regarding the least perceived items that affect mobile banking adoption, these seem to be related to complexity, and relative advantage and perceived risk of Mobile Banking are perceived as factors least affecting its adoption.

Table-3: Barriers affecting to adopt the Mobile Banking

Factor	Magnitude
Compatibility	42%
Trial Ability	58%
Complexity	47%
Security Concern	82%
Network Problem	31%
Difficulty in Handling Mobile Phone	20%
Insufficient Guidance	61%
Cost per Transaction	22%

Source: Primary Data

Table-4: Perceived Utility of Mobile Banking Services

Mobile Banking Services	Utility %
Alerts on account activity	81
Review accounts balances	74
Recent transactions / Mini-statements	61
Mobile recharging	45
Review credit cards balances	43
Status on cheque, stop payment on cheque	37
Credit card payment due date	29
Change of PIN	17
Ordering check books	10
Access to loan statements	10
Domestic fund transfers	9
Bill payment processing	7
ATM Location	5
Branch location	3

Source: Primary Data

The second objective of the research referred to the customers' perceived utility of various Mobile banking services. Respondents were provided with a list of 17 Mobile Banking services and in relation to these services respondents were asked to indicate the degree of perceived utility they attach to particular the service.

The Mobile banking services perceived to have high utility were Alerts on account activity (81%) Review accounts balances (74%), Recent transactions / Mini-statements (61%), Review credit cards balances (43%), Status on cheque/ stop payment on cheque (37%) and Mobile recharge (45%). This suggests that overall most of the customers prefer information based services rather than financial services provided by the bank. It is clear that major mobile banking users are interested in having the information of various types like checking balance, review mini statement, review credit card balances rather transaction based services is not preferred by the customer reason may security, network problem or insufficient operating guidance as founded in this research as a major barrier.

Barrier 1: Access Problems

It is the most important factor, Accessing Problem statements such as 'Possibility of error is higher than Internet Banking, Using key code list with mobile phone is complicated and Mobile phone is not compatible for banking emerges with good positive correlations.

Barrier 2: Dissatisfaction

Four variables load on to this factor. 'Dissatisfaction' is the second significant factor, which accounts of the variations. The statements 'Data transmission is very slow , Mobile banking services are risky and not secure, Mobile banking services are not enough versatile and Its use has been a disappointment by others signify that the non-adopters have seen the dissatisfaction among the users of mobile banking services.

Barrier 3: Inability to Provide Knowledge

This is another crucial factor, which is reflection of variations. The statements of insufficient guidance is there for using mobile banking and its use is complicated which reflects that consumer behavior tends to be based on how a given problem is to be solved. In this research, the non-adopters of mobile banking are afraid of being the usage of new technology due to the complications in the systems and, moreover, no proper guidance is provided to them.

Barrier 4: Demographic Challenges

India has 18 official languages which are spoken across the country. The state governments also are dictated to correspond in their regional language for official purposes.

Suggestions

The major concern among customers was the safety concern regarding mobile banking services which forms a real obstacle to use the service, followed by network problem and insufficient operating guidance. The research also found that even most of those who frequently use the Mobile Banking services, usually do not conduct much of financial transactions, but find the service very useful for information based transactions mainly checking account status. This means that the Mobile banking services is not solving the purpose it was originally made for, which is to provide customer convenience and reduce customer visits to the banks. Based on the findings, it is strongly believed that ensuring the security of Mobile banking and familiarizing customers with how to use the service will definitely increase the rate of using Mobile banking services.

Conclusion

In line with the global industries move in acquiring the latest advanced technology to stay ahead of competitors, banks throughout the world and India have notably been moving in the same direction.

Evidently, Mobile banking is considered a new era in banking, in which banks are spending considerable amount of money to have it available to their customers and to cut their operations costs. For this all stakeholders like Regulators, Government, telecom service providers and mobile device manufactures need to make efforts so that penetration of mobile banking reaches from high-end to low-end users and from metros to the middle towns and rural areas. Inclusion of non-banking population in financial main stream will benefit all. There is also need to generate awareness about the mobile banking so that more and more people use it for their benefit.

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